

# **MOBILE-BASED FLOOD RESPONSE SYSTEM**

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# **MOBILE-BASED FLOOD RESPONSE SYSTEM**

A thesis submitted to the Graduate School in partial fulfillment of the  
requirements for the degree Master of Science (Information Technology)

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By

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## **Abstract**

Floods cause many problems and damages to the countries which exposed to such disaster. This damage may be in personal or general, and its cost the government a lot of loss in infrastructure and property, which affect on economy and public money. It is very important to have a system which alert us before or during the floods, this system will response and manage all the activities and procedure that will taken by anti-flood organizations and agencies working in this area. This system will decrease economic and human losses by providing a fully and efficient observing of broadcast status and information. The study concludes that a good Warning System that can release warning in advance. It can change the existing scenario substantially and render informed decision making in adopting proper measures towards flood preparedness, mitigation, control, planning and management. This kind of advance warning can help the authorities for better flood preparedness and also well flood mitigation.

## *Dedication*

*To those who sparked my life ...*

*All the way up ...*

*Despite the hard obstacles ...*

*None has any complaint ...*

*Ahead of them all ...*

*None had ever hesitate ...*

*Essentially to my parents who ...*

*Lovefy stood in the front ...*

*Handling my tears ...*

*And to my friends who ...*

*Magically supported my feet ...*

*I dedicate this work to my beloved parents and my brother and sisters. I would also like to express my gratitude to my friends:*

*zyad hamed, Diao eddin Al-Khatib, mohamad jihad baeth, Hussam Jaradat, mohamad nassar, hamzah al-baool, hamzah al-khazaeleh, moad al-sheik Qusai Al-Zou'bi, hossam mahasneh,*

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*Mohamad Osama Ashour*

*April 18<sup>th</sup>, 2009*

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 Background**

In the future, the importance of term flood management or flood warning is expected to rise in the whole world. Flood management requires functional and reliable information about produced scenarios and flood history. A national flood information system, based on mobile and Web technology, has been developed to bring together the essential information on floods under a single user interface.

There are several indications that refer to the importance flood management is Predictable to increase in the future both nationally and globally. Firstly, climate change studies indicate that risk of flooding is increasing in inlands and costal zones. In order to adapt society to these scenarios we need to be prepared and improve our flood management. Secondly, national and international agendas and agreements require for comprehensive and progressive flood management and warning practices.

Many regions in the world have experienced severe flooding of the river in recent years. The flooding in the loss of life, damage to property, crops and had a negative impact on human well being. Recent floods in large river systems throughout the world by raising awareness of the authorities responsible for the river to the urgent need for an integrated

The contents of  
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